infiltrate, marking a strong clinical contrast in this respect with carcinoma.

6. The integument covering sarcomas of the jaw is liable to inflame and suppuration and ulceration to ensue from distention and pressure of the diseased mass beneath. When this complication occurs the difficulties of diagnosis are materially increased.

7. The fibroid epulis is liable to degenerate, and at each recurrence to become more malignant.

8. In the majority of cases sarcomas of the upper jaw are very liable to destroy life—death generally occurring from asthenia.

9. The earlier and more complete the excision the longer the interval of immunity.

A CASE OF CHRONIC CEREBRAL ABSCESS (ANTE-MORTEM DIAGNOSIS).

By A. R. JENKINS, M. D.,

OF HENDERSON, KY.

WAS consulted on August 25 of this year by John Reeve, white, male, æt. 26 years, on account of a swelling on the right side of his head. Found colossal fluctuating tumor filling out the right temporal fossa and fascia. Opened abscess behind the ear and into the mouth at processus coronoideus. About half a pint of thick, mushy, odorless pus discharged. Could find no erosion of temporal bone either with finger or probe. Insisted on chiseling into the sinus mastoideus, but patient refused. Disinfected and drained lege artis.

Anamnesis—latent stage. About one year ago patient suffered from pain and swelling around and behind the right ear. Shortly afterward he had a purulent discharge from right ear which has run continuously until the last two weeks, when the abscess began forming behind his ear and and since which there has been no discharge from the ear. Right mem-

brana tympani gone; dry, congested granulations in middle ear; complained of severe general headache, intermittent, no dizziness, nausea or vomiting during exacerbations of pain. He complained bitterly of a painless, restless insomnia—free from hallucinations however—of frequent difficulty in swallowing, and of a large and disagreeable secretion of saliva; said this was his most distressing symptom.

Patient had a vacant, pathological expression of countenance, said he had frequently used morphine in the last two weeks; was garrulous and slightly incoherent in conversation: being unacquainted with his mental peculiarities this was attributed to whiskey and morphine. In each day's progress during the last week in which he lived there seemed to be developed a more and more erratic psychosis. Paraphasic peculiarities are now recalled that existed in his speech, though little stress was laid upon this at the time. Altogether, his conversational nuances were uncertain, chaotic and eminently monotonous. Temperature statistic irregular, intermittent, having 103° for maximum. Quinia in large doses had no marked control, and still the temporal subfascial abscess was behaving faultlessly. During this time he insisted for the most part on not being confined to his room or bed. Terminal stage—exactly one week after the external abscess had been opened he awoke in mild delirium, recognized me when I spoke to him; pulse 50 to the minute, intermitting one beat after each third beat. Respiration 25, with decided stertor; temperature, 103°; lessened knee jerk on left side. Slight hemi-anæsthesia to left side, does not notice pin pricks on this half; does upon the other side, pupils symmetrical and correspondent to sunlight. He occasionally rose from bed and stood alone, constant and large flow of saliva from right side, uvula drawn to left; tongue also drawn to this side, apparently could not swallow; faucial anæsthesia and muscular paresis decided. A feather introduced in fauces produced no reflex. Articulation lame and uncertain, very restless tossing of arms and head.

Two hours later, slight general anæsthesia most marked on either side, muscular sense ditto, tendo-reflex in abeyance, right pupil dilated, pulse normal and strong, respiration 26,

stertor pronounced, saliva chokes and has to be mopped out, he seems unable to speak, though apparently temporarily in a degree at least conscious, for instance tries to use cuspadore when presented and reminded to spit, ataxic aphasia (?), conjunctiva and face injected, right conjunctiva and general Schneiderian membrane anæsthetic, only left eye blinked when filliped on the nose, muscular apparatus of right eye seems impaired. Was told now for the first time that the patient had in the last eighteen months undergone a complete metempsychosis from having been grave and quiet he had become as above indicated. Made an exploratory drill opening into mastoid cells (without an anæsthetic), but found no pus, then advised and insisted that he be trephined through the temporal bone, the point elected being on the pars squamosa, midway between the meatus auditorius and the squamous suture, but the operation was not permitted. The hope was that by this portal, a large abscess with probable congestion and œdema could be reached, which was hypothecated to be in or on the temporal lobe of the brain. For from the symptoms that have been mentioned, and others, it seemed that other cerebral lesions which might present similar or confounding symptoms could be excluded—as convex or basilar meningitis, phlebitis or thrombosis of sinus with meningitis, occipital abscess, tumor, etc. Some of the favoring diagnostic points were, the history of chronicity, the peculiar fever phases, the recent and remote and continued evidences of pressure on certain striæ of capsula interna of right hemisphere. The main indices, however, that were regarded, were the comparative absence of symptoms of local cerebral disturbance—on the anatomical relation and the pathological history of such ear troubles and such abscesses of temporal lobe; for instance, the observation of Heinecke, of the relative greater frequency of abscess on the right side in aural inflammation. The very absence of symptoms was considered to be of affirmative value, for this absence of symptoms is one of the peculiarities of lesions in this inane cerebral continent. "The loss of brain substance in the temporal lobe which abscesses of the brain necessarily produce, is not sufficient according to experience to call forth important symptoms.' the case con-

tinued, the symptoms of cerebral œdema and intra-cranial pressure gradually increasing, when suddenly the next day at near 12 o'clock, A. M., the case assumed the severest phase, his pulse which shortly before had been 90 became 125, respiration of the Cheyne-Stokes type, universal paralysis of motion and sensation; absolute conjunctival anæsthesia, total absence of patellar reflexes, complete cutaneous insensibility. This was about thirty hours from the initiation of the terminal stage—about ten before his death. The case presented no convulsive phases in any part of the attack. Last reckoning of radial pulse 160—in status exodus lethalis.

Obductio capitis—found scarcely no remains of subfascial abscess, no superficial necrosis or softening of temporal bone discovered, nor of mastoid angle of occipital. Tabula vitrea externus of mastoid thickened and eburnated. Cellulæ mastoidei full of pus, several caseous and floccular foci (osteo-myelitis tuberculosa). Between pars squamosa and dura two small abscesses the size of peas and communicating with superior cells. Dura thickened and of a muddy, yellow color (pachymeningitis externa purulenta). On inner surface of dura a thickened organized deposit, agreeing in size and location to epidural abscesses, reddish-yellow in color (pachymeningitis interna fibrosa et vasculosa). Brain rises to edges of opening. Pia thickened and cloudy, but not adherent to dura or brain (arachnitis superficialis fibrosa). Cortex cloudy, yellow color and œdematous (gelbes œdem?) The gyri had lost of both their rondure and contour. Sulcus temporalis medius almost obliterated. Abscess tapped at a depth of one and one-half centimetres of size and of shape of a hen's egg. Strong connective tissue capsule offers a resistance of probably two or three pounds to index finger. Abscess contents of a greenish-yellow color, viscid, acid reaction. Rupture into right lateral ventricle into posterior horn. It lay for the most part in the temporal lobe and to a large extent superficial, just under cortex. No involvement of cortex of convexity. No direct pus connection between abscess of brain and epidural abscess discovered. As a point in clinical casuistry it is a question whether the osteomyelitis of the mastoid process was primary

and precedent to the otitis media, for if so it is likely that the abscess of the brain was several months senior to both the otitis media, and the pain and swelling that first came behind the ear; in other words, it abscessed the brain before showing externally. The case is certainly an excellent examplar for the necessity of prompt and radical exploration, and raises the question if it is not the truest conservatism in such cases (as in the abdomen) to explore at once.